

1 ABSTRACT

2 A storage and retrieval apparatus including a robotic device capable of gripping items
3 stored in the apparatus and delivering the item to a separate, proximate instrument. The
4 items to be stored are loaded from the outside of the apparatus at each face of the
5 hexagonal or octagonal shaped storage carousel. The storage carousel, which can be
6 manually rotated, is mounted on a stationary base, both structures including a hollow
7 core. The robotic device includes slider bars within the core of the apparatus and is
8 rotatable about the central axis of the apparatus. The robotic device is capable of
9 translating vertically, telescoping horizontally, rotating and gripping an item stored at a
10 desired location within the storage carousel. Upon retrieval of a desired item, the robotic
11 device will proceed to retract and translate downward to an aperture within the base. The
12 item is transferred to an adjacent instrument through the aperture using the telescopic arm
13 of the robotic device.